

a casing for containing a heat transfer package therein, said casing having a top end, a bottom end, a pair of respective lengthwise and widthwise opposed sides, each of said lengthwise sides provided with a pair of inlet and outlet ports, wherein each respective pair of inlet and outlet ports is dedicated to one of said first and second mediums for flow therethrough;

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a heat transfer package disposed within said casing, said heat exchange package having a lengthwise extent and a widthwise extent, each of the fluid mediums following on their respective side of the planar elements a net flow path which extends longitudinally along the lengthwise extent, said package comprised of a plurality of generally rectangularly shaped planar elements continuously arranged in sequentially alternating directions in a folded accordion-like manner, each of said planar elements having substantially similar length, width and thickness with respect to each other, each of said planar elements integrally connected to an adjacent planar element along said length, said length and width of said casing substantially corresponding to said length and width of said package, opposing surfaces from each adjacent planar element defining an inter-layer space therebetween for receiving a flow of one of said fluid mediums therebetween, a direction of flow of each medium having a widthwise element and a lengthwise element when flowing within said inter-layer space, each of said planar elements having a corrugated pattern formed therein, said corrugated pattern extending the entire length and width of each respective planar element, said pattern corresponding to a series of alternating ridges and channels formed at an angle of [no] more than 45 degrees with respect to said length of said planar elements, which pattern, in respect to the net flow path, are oriented in a more transverse than lengthwise direction, said corrugated pattern interrupted at substantially similar intervals to include a fold line for facilitating arranging each of said planar elements in an accordion-like manner, said fold lines defining said width of each respective element and being disposed parallel along said length of each of said elements, wherein when said heat transfer package is in an unfolded state, a pattern of ridges and channels of a first planar element is generally aligned with respect to a pattern of channels and ridges of a successive planar element, and

wherein when said heat transfer package is in a folded state, said pattern on every other planar element is co-extensive to the other and said ridges and channels between facing sides of adjacent planar elements form a crossing pattern to each other such that said